

BMW · POWERTRAIN

P1448

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1448 · BMW

Diagnostic Module Tank Leakage DM-TL Pump Too Low During Switching

P1448 on BMW vehicles means the Diagnostic Module Tank Leakage (DM-TL) pump did not reach the expected low-pressure threshold when the module commanded it to switch states during an evaporative emissions leak test. The engine control module monitors the pump's electrical current and pressure behavior, and it sets this code when the pump's response during the switching phase falls outside the calibrated window.

SYSTEM

Powertrain

CODE TYPE

BMW specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the Check Engine Light, often with no other noticeable symptoms
- A slight fuel odor around the rear of the vehicle in some cases
- Intermittent failure of the evaporative emissions monitor to complete its self-test
- Rough idle or slight hesitation in rare cases if a large leak is also present
- Fuel cap warning message on models equipped with a cap sensor
- No driveability complaints in the majority of cases

Common causes, most likely first

- 1 Faulty DM-TL pump assembly, including a worn internal diaphragm or stuck valve
- 2 Cracked or disconnected evap hose between the DM-TL pump and the fuel tank
- 3 Leaking or improperly seated fuel filler cap
- 4 Contaminated or stuck evaporative emissions purge valve affecting system pressure
- 5 Corroded or damaged wiring and connector pins at the DM-TL pump
- 6 Restricted or blocked evap vent line or charcoal canister port
- 7 Failed fuel tank pressure sensor sending an inaccurate signal to the module



How to diagnose and fix it

- 1 Inspect the fuel filler cap for cracks, a damaged seal, or improper seating and replace if needed
- 2 Visually inspect all evap hoses and connections between the DM-TL pump, canister, and fuel tank for cracks or disconnects
- 3 Use a scan tool to command the DM-TL pump on and off while monitoring live pressure and current data to confirm the fault
- 4 Check the DM-TL pump connector for corrosion, backed-out pins, and verify power and ground at the pump
- 5 Perform a smoke test on the evaporative emissions system to locate any leaks not visible to the eye
- 6 Test the purge valve for proper sealing and operation, replacing it if it fails to hold vacuum
- 7 Replace the DM-TL pump assembly if electrical and leak checks pass but the pump still fails to switch correctly

DM-TL pump switching faults often misdiagnosed

- A loose or aftermarket fuel cap is one of the most common triggers for this code, yet many technicians replace the DM-TL pump before checking the cap seal.
- The DM-TL pump can pass a static resistance test and still fail the switching test because the fault is mechanical inside the pump, not electrical.
- A failing purge valve that sticks open can alter system pressure and cause the DM-TL pump to appear faulty during the switching phase.
- Corroded pins at the DM-TL pump connector often mimic a failed pump, so always back-probe the connector under load before condemning the pump.
- This code does not always mean the pump is bad; a restricted vent line or saturated charcoal canister can produce the same switching fault.

Can I keep driving with P1448?

The vehicle remains safe to drive because this fault affects only the evaporative emissions system and does not impair engine performance. Avoid topping off the fuel tank past the automatic shutoff and have the system inspected soon to prevent a small leak from becoming a larger evap fault.

Tools that help

- OBD-II scan tool with BMW-specific software and bidirectional control
- Smoke machine for evaporative emissions leak testing
- Digital multimeter for voltage and resistance checks
- Hand tools for hose clamp and connector access
- Fuel cap tester or known-good fuel cap for substitution



Reading P1448

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (BMW): its meaning depends on the make.
- 4** Auxiliary emission controls.
- 48** The exact fault within that area.

Often seen with

P0440 Evaporative Emission Control System Malfunction · **P0442** EVAP System Leak Detected (Small) · **P0455** EVAP System Leak Detected (Large) · **P0456** Evaporative Emission System Leak Detected (very small leak)

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1448/>

